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(401)
in Fig. 22, and then rotated in clockwise direction as viewed in Fig. 22 so that the stems of the engagement pins 272B are received in the recesses 275B. In this manner, setting of the stop mechanism 270B is completed. This setting may be manually performed.

IN THE CLAIMS:

The claims have been amended as follows:

11. (Amended) An apparatus for automatically loading a desired amount of powder material into a tubular mold having a bore extending therethrough, said apparatus comprising:

a mold conveyor system for supporting and conveying said mold with a lower press core fitted in said bore;

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a powder filling mechanism for filling an amount of powder material into said mold, said powder filling mechanism being located at a powder filing position defined along a transportation path of said mold conveyed by said mold conveyor system; and

a press unit for pressing at a desired pressure the amount of powder material in said mold to form a powder compact,

wherein the mold in which the desired amount of powder compact is loaded is conveyed out of the powder filling position and a new mold with no powder material being loaded is conveyed to the powder filling position.

16. (Amended) An apparatus for automatically loading a desired amount of powder material into a mold according to claim 11, further comprising:

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a measure unit for measuring the weight of said mold with the amount of powder material filled into said mold, so as to measure the weight of the amount of powder material filled into said mold.

17. (Amended) An apparatus for automatically loading a desired amount of powder material into a mold according to claim 11, wherein said powder filling mechanism has a single powder filling position and wherein:

a) said powder filling mechanism comprises:

at least one hopper movable to and from said single powder filling position and adapted to store an amount of powder material therein; and

a strickle mechanism for strickling off any excessive amount of powder material, being filled into said mold from said hopper to the level of a top surface of said mold; and

b) said press unit comprises

a lower press member located at said powder filling position, for pressing upward said lower press core fitted in said mold; and

an upper press member for pressing downward the amount of powder material in said mold.

19. (Amended) An apparatus for automatically loading a desired amount of powder material into a mold according to claim 17, wherein;

said powder filling mechanism further comprises a rotary table capable of indexing movement;

said at least one hopper is movable relative to said mold held at said powder filling position and movable on a plane of said top surface of said mold held at said powder filling position;

said at least one hopper forms a part of said strickle mechanism;

said at least one hopper comprises a plurality of hoppers provided on said rotary table at circumferentially spaced positions with respect to the axis of said rotary table, said plurality of hoppers being capable of individual movement; and

different powder material are stored in said plurality of hoppers, respectively, differing from one another in at least one of properties including component(s) of powder material, percentages of components, particle size and particle shape.

20. (Amended) A powder filling mechanism for filling powder material into a mold which has a bore opening at a top end thereof, said mechanism comprising:

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a support plate having a top surface and a hole sized to receive said upper end of said mold, wherein said upper end of said mold is capable of fitting in said hole without any substantial clearance therebetween and with said top surface of said support plate and a top surface of said mold being substantially flush with each other;

a hopper having a bottom surface and so disposed as to be movable on said top surface of said support plate with said bottom surface being in contact with said top surface of said support plate, said hopper having an amount of powder material stored therein; and

said hopper having a bottom opening for dispensing powder material, which opens at said bottom surface and has a size equal to or greater than that of a top opening of said bore of said mold, wherein said hopper is movable on said top surface of said support plate and across said top surface of said mold.

22. (Amended) A powder filling mechanism, for filling powder material into a mold which has a bore opening at a top end thereof, said mechanism comprising:

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a support plate having a top surface and a hole for receiving said upper end of said mold, wherein said upper end of said mold may be fitted in said hole without any substantial clearance therebetween and with said top surface of said support plate and a top surface of said mold being substantially flush with each other;

a hopper having a bottom surface and so disposed as to be movable on said top surface of said support plate with said bottom surface being in contact with said top surface of said support plate, said hopper having an amount of powder material stored therein; and

said hopper having a bottom opening for dispensing powder material, which opens at said bottom surface and has a size equal to or greater than that of a top opening of said bore of said mold, wherein said hopper is movable on said top surface of said support plate and across said top surface of said mold,

wherein said hopper is movable along a straight path between first and third positions at which said bottom opening of said hopper is closed by said support plate, wherein said hopper

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passes by a second position during a stroke between said first and third positions, at which said bottom opening of said hopper is in alignment with said hole in said support plate, whereby powder filling is completed by a single stroke of said hopper from one of said first and third positions to the other.